

THE BUILDING CODE AND FIRE PREVENTION CODE RELATIONSHIP

Fire Inspectors want to partner with building construction trades and building inspectors.

sps 314.01(13)(b) states: "The chief of the fire department shall be responsible for having all public buildings and places of employment within the territory of the fire department inspected for the purpose of ascertaining and causing to be corrected any conditions liable to cause fire, or any violations of any law or ordinance relating to fire hazards or to the prevention of fires."

Each public building is inspected at least once per year.

Working together on the front end will save time, money, and frustration. In the end, the customer wins with a project that is well designed and does not have to undergo changes after project completion.

ADOPTION OF MODEL FIRE CODE

The State of Wisconsin adopted the 2012 edition of NFPA 1 effective September 1, 2014 through SPS 314 the Fire Prevention Code.

SCOPE

SPS 314 applies to all public buildings and places of employment that exist on or after September 1, 2014.

RELATIONSHIP BETWEEN THE IFC AND NFPA

The International Fire Code (IFC) incorporates over 200 NFPA Codes and Standards as referenced documents for the purpose of building construction.

ACCESS TO NFPA 1

Codes may be accessed free of charge at www.nfpa.org

A subscription is needed to download material from this site.

PHOTOVOLTAIC SYSTEMS

11.12.2.2 Access, Pathways, and Smoke Ventilation

11.12.2.2.1 General. Access and spacing requirements shall be required to provide emergency access to the roof, provide pathways to specific areas of the roof, provide for smoke ventilation opportunity areas, and to provide emergency egress from the roof.

PHOTOVOLTAIC SYSTEMS

CONTINUTED

- 11.12.2.2.1.1 Exceptions
- 11.12.2.2.1.2 Pitch
- 11.12.2.2.1.3 Roof Access Points
- 11.12.2.2.2 One- and Two-Family Dwelling and Townhouses
- 11.12.2.2.2.1 Access and Pathways
- 11.12.2.2.2.1.1 Hip Roof Layouts
- 11.12.2.2.1.2 Single Ridge Layouts
- 11.12.2.2.1.3 Hip and Valley Layouts
- 11.12.2.2.2 Ridge Setback

PHOTOVOLTAIC SYSTEMS

CONTINUTED

- 11.12.2.2.3 Buildings Other Than One- and Two-Family Dwellings and Townhouses
- 11.12.2.2.3.1 Access
- 11.12.2.2.3.2 Pathways
- 11.12.2.2.3.3.1 Maximum Array
- 11.12.2.2.3.3.2 Ventilation Options

SMOKE ALARMS

SPS 314.13 (5) Note: [2] Under ch. SPS 366, all smoke alarms must be replaced by the end of the service period specified by their manufacturer, and a replacement alarm that uses a battery as the primary power source must have a non-replaceable, non-removable battery which is capable of powering the alarm for at least ten years.

SMOKE-CONTROL SYSTEMS

11.8.1 Newly installed smoke-control systems shall be inspected by the AHJ and tested in accordance with the criteria established in the approved design documents, NFPA 204 and NFPA 92.

USE CHANGES

13.3.4.1.5 Changes in Occupancy, Use, Process, or Materials.

The property owner or designated representative shall not make changes in the occupancy, the use or process, or the materials used or stored in the building without evaluation of the fire protection systems for their capability to protect the new occupancy, use, or materials.

USE CHANGES

13.3.3.4.1.6.1 Where changes in the occupancy, hazard, water supply, storage commodity, storage arrangement, building modification, or other condition that affects the installation criteria of the system are identified, the property owner or designated representative shall promptly take steps to evaluate the adequacy of the installed system in order to protect the building or hazard in question.

USE CHANGES

13.3.3.4.1.6.2 Where the evaluation reveals that the installed system is inadequate to protect the building or hazard in question, the property owner or designated representative shall make the required corrections.

13.3.3.4.1.6.3 Corrections shall be approved.

EQUIPMENT ACCESS

13.4.2.2.1 Access to the fire pump room shall be preplanned with the fire department.

DIESEL ENGINE DRIVER SYSTEM OPERATION

13.4.4.1 Engines shall be designed and installed so that they can be started no less than once a week and run for no less than 30 minutes to attain normal running temperature.

FIRE ALARM SYSTEMS

13.7.1.4.3 Location of Controls.

Operator controls, alarm indicators, and manual communications capability shall be installed at a convenient location acceptable to the AHJ.

FIRE ALARM SYSTEMS

- 13.7.3.2.1. Approval and Acceptance.
- 13.7.3.2.1.1 The AHJ shall be notified prior to installation or alteration of equipment or wiring.
- 13.7.3.2.1.2 At the AHJ's request, complete information regarding the system or system alterations, including specifications, type of system or service, shop drawings, input/output matrix, battery calculations, and notification applicance circuit voltage drop calculations, shall be submitted for approval.

PROTECTION DURING CONSTRUCTION

13.7.4.3.8.1 Where detectors are installed for signal initiation during construction, they shall be cleaned and verified to be operating in accordance with the listed sensitivity, or they shall be replaced prior to the final commissioning of the system.

13.7.4.3.8.2 Where detectors are installed but not operational during construction, they shall be protected from construction debris, dust, dirt, and damage in accordance with the manufacturer's recommendations and verified to be operating in accordance with the listed sensitivity, or they shall be replaced prior to the final commissioning of the system.

PROTECTION DURING CONSTRUCTION

- 13.7.4.7.5 Unless otherwise permitted by 13.7.4.7.6, smoke detectors or smoke alarms found to have a sensitivity outside the listed and marked sensitivity range shall be cleaned and recalibrated or be replaced.
- 13.7.4.7.6 Smoke detectors or smoke alarms listed as field adjustable shall be permitted to either be adjusted with in the listed and marked sensitivity range, cleaned, and recalibrated, or be replaced.

FIRE DEPARTMENT CONNECTION (FDC)

13.8.17.2.4.6 Unless otherwise directed by the AHJ, fire department connections shall be on the street side of buildings and shall be located and arranged so that hose lines can be readily and conveniently attached to the inlets without interference from any nearby objects, including building fences, posts, or other fire department connections. The location shall be based upon the requirements of the fire department.

FDC SIGNAGE

13.17.2.4.7.1 Each fire department connection to sprinkler systems shall be designated by a sign having raised or engraved letters at least 1 in. (25.4 mm) in height on a plate or fitting reading service design – for example, AUTOSPKR., OPEN SPKR., AND STANDPIPE.

SPRINKLER SYSTEM ACCEPTANCE

- 13.24.1 Approval of Sprinkler System and Private Fire Service Mains. The installing contractor shall do the following:
- (1) Notify the AHJ and the property owner or the property owner's representative of the time and date testing will be performed.
- (2) Perform all required acceptance tests
- (3) Complete and sign the appropriate contractor's material and test certificate.

SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS

16.2.2.4.1 A trash chute safety plan shall be submitted to and approved by the AHJ.

SAFE GUARDS DURING CONSTRUCTION

16.4.3.1.3 Where underground water mains and hydrants are to be provided, they should be installed, completed, and in service prior to commencing construction work on any structure.

FIRE DEPARTMENT ACCESS & WATER SUPPLY

18.1 Fire Department access and water supplies shall comply with this chapter.

18.1.1.1 This chapter shall apply to public and privately owned fire apparatus access roads.

18.1.1.2 This chapter shall apply to public and privately owned fire hydrant systems.

FIRE DEPARTMENT ACCESS & WATER SUPPLY

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ACCESS BOXES

18.2.2.1 Access Box(s) The AHJ shall have the authority to require an access box(s) to be installed in an accessible location where access to or within a structure or area is difficult because of security. The access box(es) shall be of an approved type listed in accordance with UL 1037.

FIRE DEPARTMENT ACCESS ROADS

18.2.3.1 Required Access

18.2.3.1.1 Approved fire department access roads shall be provided for every facility, building, or portion of a building hereafter constructed or relocated.

ACCESS ROADS

18.2.3.1.4 When fire department access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the AHJ shall be authorized to require additional fire protection features.

ACCESS ROADS

18.2.3.2.1 A fire department access road shall extend to within 50 ft (15 m) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building.

ACCESS ROADS

18.2.3.2.2 Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 ft (46 m) from fire department access roads as measured by an approved route around the exterior of the building or facility.

MULTIPLE ACCESS ROADS

18.2.3.3 More than one fire department access road shall be provided when it is determined by the AHJ that access by a single road could be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

ACCESS ROAD SPECIFICATIONS

18.2.3.4.1.1 Fire department access roads shall have an unobstructed width of not less than 20 ft (6.1 m).

18.2.3.4.1.2 Fire department access roads shall have an unobstructed vertical clearance of not less than 13 ft 6 in. (4.1 m).

SPECIFICATION MODIFICATION

18.2.3.4.1.2.2 Vertical clearances or widths shall be increased when vertical clearances or widths are not adequate to accommodate fire apparatus.

ACCESS ROAD SURFACE

18.2.3.4.2 **Surface.** Fire department access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with an all-weather driving surface.

TURNING RADIUS/ DEAD ENDS

18.2.3.4.3.1 The turning radius of a fire department access road shall be as approved by the AHJ.

18.2.3.4.4 Dead Ends. Dead-end fire department access roads in excess of 150 ft (46 m) in length shall be provided with approved provisions for the fire apparatus to turn around.

ACCESS ROAD BRIDGES

18.2.3.4.5.1 When a bridge is required to be used as part of a fire department access road, it shall be constructed and maintained in accordance with recognized standards.

18.2.3.4.5.2 The bridge shall be designed for a live load sufficient to carry the imposed loads of fire apparatus.

MARKING OF FIRE APPARATUS ACCESS ROADS

18.2.3.5.1 Where required by the AHJ, approved signs, approved roadway surface markings, or other approved notices shall be provided and maintained to identify fire department access roads or to prohibit the obstruction thereof or both.

WATER SUPPLIES

18.3.1* An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with Section 18.4.

WATER SUPPLIES

18.4.1.1* The procedure determining fire flow requirements for buildings hereafter constructed or moved into the jurisdiction shall be in accordance with Section 18.4.

FIRE HYDRANTS

- 18.5.1 The number and type of fire hydrants and connections to other approved water supplies shall be capable of delivering the required fire flow and shall be provided at approved locations.
- 18.5.2 Fire hydrants and connections to other approved water supplies shall be accessible to the fire department.
- 18.5.3 Clear Space Around Hydrants. A 36 in. clear space shall be maintained around the circumference of the fire hydrants except as otherwise required or approved.

FIRE HYDRANTS

18.5.4 Private water supply systems shall be tested and maintained in accordance with NFPA 25

18.5.5 Where required by the AHJ, fire hydrants subject to vehicular damage shall be protected unless located within a pubic right of way.

18.5.6 Where water supplies or fire hydrants are out of service for maintenance or repairs, a visible indicator acceptable to the AHJ shall be used to indicate that the hydrant is out of service.

MARKING OF HYDRANTS

- 18.5.7.1 Fire hydrants shall be marked with an approved reflector affixed to the roadway service where required by the AHJ.
- 18.5.7.2 Fire hydrants shall be marked with an approved flag or other device affixed to or proximate to the fire hydrant where required by the AHJ.
- 18.5.7.3 Where required by the AHJ, fire hydrants shall be color coded or otherwise marked with an approved system indicating the available flow capacity.

FIRE-FIGHTING ACCESS

21.3.3.3.1 The heliport shall have at least two access points for firefighting/rescue personnel. The access points shall be located at least 90 degrees from each other as measured from the center of the landing pad.

STORAGE, HANDLING & DISTRIBUTION OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

43.1.6.1 General. Storage, handling, mixing of flammable and combustible shall meet all the applicable requirements of NFPA 30 and 43.1.6



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